2018 Science Olympiad BCS Invitational Herpetology Test

Division B

**Please don’t open your test packet until told to do so by the event supervisor!**

**Please put your names, team number and color, and your school name on both the test packet and your answer sheet in the space provided.**

**For all questions asking that you identify the animal or species, provide the common and scientific names unless otherwise prompted to do so.**

**Please write legibly, indecipherable answers will not be counted.**

**If you need more space for your answers, use the back of your answer sheet, but make sure you mark your answer with the station and question number.**

**Good Luck!**

**Name(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Team #/Color:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**School Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Station 1: Call Identification

1. Identify the species. (2 pts.)

2. What is the only way to distinguish between the animal in question 1 and H. chrysoscelis? (1 pt.)

3. What species is this? (2 pts.)

4. What species is this? (2 pts.)

Station 2

1. In figures A and B, identify which animal is a crocodile and which is an alligator. Give two reasons how can you tell the difference given what you see in these photos? (4 pts.)
2. Crocodilians differ from other reptiles due to a complete \_\_\_\_\_\_\_\_\_\_ dividing the left and right ventricles giving them a four-chambered heart. (1 pt.)
3. What type of protein is the main component of a reptile’s scales? (1 pt.)
4. Give 3 examples of adaptations found in crocodilians that increase their efficiency as predators. (3 pts.)
5. Over 80% of reptiles worldwide can be found between \_\_\_\_\_oN and \_\_\_\_\_oS latitudes. (1 pt.)

Station 3

1. Name the species in photos A & B. (2 pts.)
2. Name two ways to distinguish between the venomous snake and non-venomous snake in these photos. (2 pts.)
3. What is Parthenogenesis and how is it related to *Ramphotyphlops braminus*? (2 pts.)
4. What is “walk-feeding”? Describe it. (2 pts.)

Station 4

1. Give the name of the animal in the photo and to which family does it belong? (2 pts.)
2. What obvious physical difference distinguishes this animal from Necturus? (1 pt)
3. Name the law that regulates the importation or shipment of injurious mammals, birds, fish, amphibian and reptiles into the U.S. (1 pt.)
4. 20 genera of salamanders are restricted in the U.S. due to the law in question 3. What disease that afflicts salamanders and newts is the cause of this restriction? (2 pts.)

Station 5

1. What family does this turtle belong to? Common name not accepted. (1 pt.)
2. This family belongs to the suborder, Cryptodira even though they have lost the ability to do what? (1 pt.)
3. Name two threats to the survival of this family of turtles and name one thing that is being done to counteract these threats. (3 pts.)
4. Sea turtles return to their place of birth to lay their own eggs. How do they navigate back to the beaches on which they were born? (1 pt.)

Station 6

1. Name the structure labeled A on Figure 1. What is its function (2 pts.)?
2. Name the structures labeled A through D in Figure 2. (4 pts.)
3. What family and subfamily does the snake in Figure 2 belong to and how do you know? (2 pts.)
4. Name one species belonging to the subfamily in question 3 that can be found in Michigan. (1 pt.)

Station 7

1. Identify the snake in the picture. (1 pt)
2. Terrestrial snakes use 4 types of locomotion to move. Name 2 types and give a brief description of how each form of locomotion works. (6 pts.)
3. Name the species of snake that lives north of the Arctic Circle. (1 pt.)

Station 8

1. Identify the turtle in the photo. (1 pt.)
2. The turtle in the photo got its common name from features having to do with its shell. Name these features. (2 pts.)
3. Match the heart diagram, letters A-D in Figure 1 with the animal group to which each belongs- crocodilians, lizards, turtles, snakes (4 pts.).
4. Which U.S. state has more non-native species of reptiles and amphibians living and breeding in the wild than anywhere else in the world? (1 pt.)

Station 9

1. Reptiles use many different behaviors as defenses against threats such as avoidance/hiding, spitting, noise, and biting/striking. Name 5 more behaviors used by reptiles to defend themselves or their territory from threats. (5 pts.)
2. Identify the animals in the photos A-D. (4 pts)

You’re done! Good Luck in your other events!